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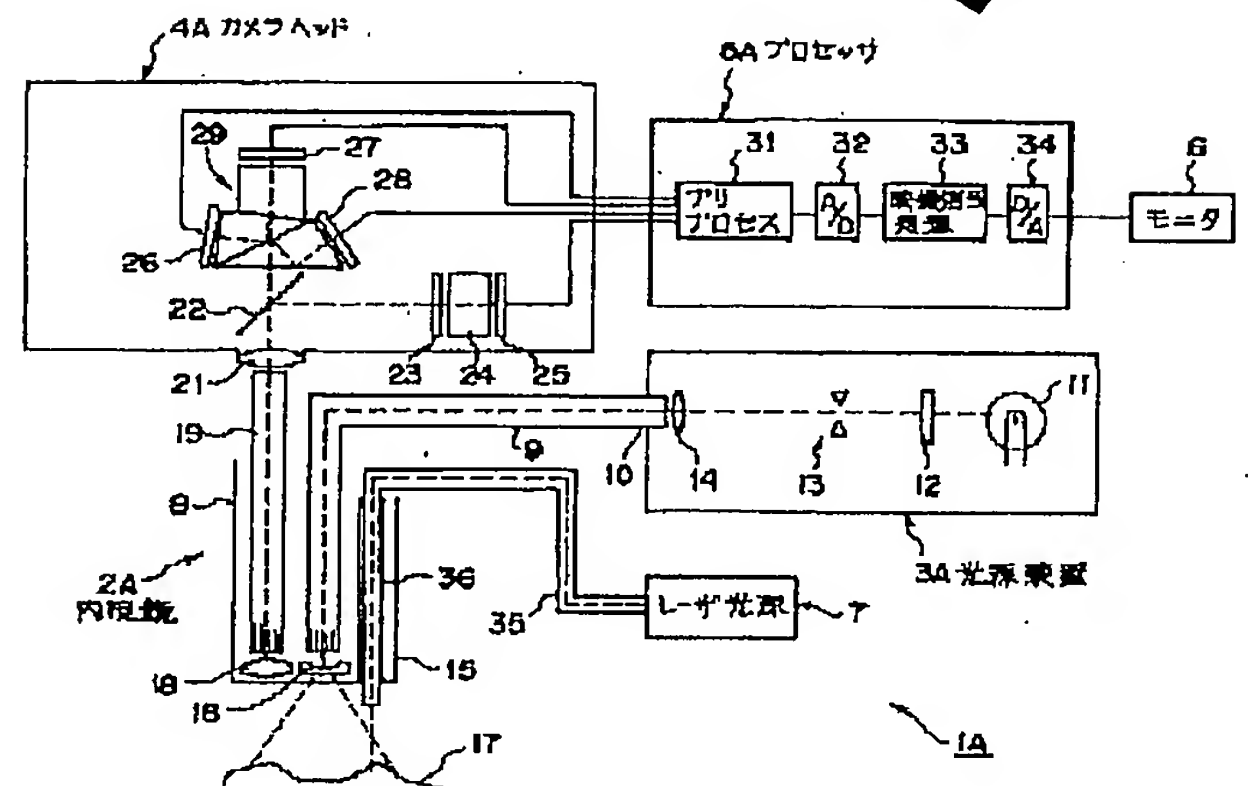
APPLICATION DATE : 23-05-97
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APPLICANT : OLYMPUS OPTICAL CO LTD;

INVENTOR : NAKAMURA KAZUNARI;

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TITLE : ENDOSCOPE APPARATUS



ABSTRACT : PROBLEM TO BE SOLVED: To carry out observation of an indocyanine green derivative labeled antibody which is excited and which emits luminous fluorescence in an infrared region showing a good transparency into biological tissue and at the same time allowing to eliminate self-fluorescence and prevent to miss by an over night a lesion in the sub cutaneous depth.

SOLUTION: The light from a lamp 11 which is converted to lights at wave length range including exciting light in an infrared region and visible lights by passing a bandpath filter 12 and through a light guide fiber 9 of an endoscope 2A irradiates an examining subject 17 which an indocyanine green derivative labelled antibody emitting fluorescence is administrated. A picture image by the reflected light and fluorescence is transmitted by an image guide 19 to a dichroic mirror 22 arranged on a camera head 4A to divide into visible lights and infrared rays and a picture image by fluorescence through an exciting light cut filter 23 from the infrared rays is taken by the first CCD 25, a picture image by the visible lights is taken by a dichroic prism 29 and the second to forth CCD 26-28 and is signal processed by a processor 5A, and a fluorescent picture image and usual picture image by visible lights are shown on a monitor 6 at the same time.

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